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FROM CRAFTSMANSHIP TO INDUSTRIAL DESIGN. THE *BOTIJO*: METAMORPHOSIS OF A SYMBOL, FROM TRADITION TO MODERNITY

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Abstract

This article explores the transformation of the *botijo*, a traditional object from Spanish rural culture, from its artisanal origins to its re-signification as a piece of contemporary design. Through documentary analysis and case studies—such as the *La Siesta* botijo and the work of designers like André Ricard and Martín Ruiz de Azúa— the article examines how this object has been reimagined to meet the symbolic, aesthetic, and functional demands of modern society. The approach draws on theories of user-centered design and the evolution of everyday objects. The results show that, while the botijo's original utilitarian function has sometimes been diminished, in other cases it has been preserved and even enhanced, while the botijo has also become a symbolic element capable of integrating tradition, sustainability, and innovation. This re-signification reveals new forms of dialogue between craft, industry, and contemporary design, offering useful frameworks for reflecting on material culture and its transformation over time.

Keywords: Botijo, Industrial Design, Contemporary Craft, Material Culture, Innovative, User-centred Design, Theories of Design (André Ricard).

Introduction

The relationship between craftsmanship and industrial design has historically been shaped by the social necessity of producing functional everyday objects. Craftsmanship, rooted in manual techniques and local traditions, has provided immediate responses to specific needs. In contrast, industrial design, driven by technological progress, has introduced mass production and standardisation.

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The botijo is a paradigmatic case study, showing the progressive integration of technology in meeting basic needs. Its evolution reflects the transition from artisanal solutions based on cooling through clay evaporation to more complex electrified mechanisms, such as domestic refrigeration.

This study therefore seeks to show how the evolution of everyday artifacts such as the botijo illustrates the intersection of tradition, technology, and evolving social demands. Through studying historical, technical and artistic documentation, we aim to trace the views of relevant authors alongside André Ricard's[1] narrative of the evolution of objects. Comparing different functional objects designed by contemporary artists will demonstrate how traditional materials such as clay are reinterpreted in contemporary artifacts, where the aesthetics and "meta-design"[2] of vessels convey a narrative.

Materials and methods

This research was conducted using a qualitative analysis methodology, focusing on the interpretation of written documents and the observation of design and craftsmanship productions and manifestations. The literature review is based on the analysis of primary sources from leading design theorists such as André Ricard, Donald Norman, Bernhard Bürdeck and Isabel Campi. These contributions have been supplemented with scientific articles, catalogues, specialised magazines and digital publications. This documentary basis covers disciplines such as history, archaeology and design. It has enabled the construction of a comparative framework focusing on contemporary re-significations of the object of study by different designers.
Taking an exploratory and descriptive approach, the aim is to highlight how the botijo condenses the evolution of human needs, social developments and technical progress, and how design relates need to tradition. As Ricard puts it, design is "a new, updated version of the innate creativity that the human species possesses in order to equip itself with the material devices necessary for its own survival."[3]

From water to clay: the keys to understanding the emergence of the botijo

Along with air, earth and fire, water was considered by the pre-Socratics to be one of the four primary elements in the formation of the universe a view later endorsed by thinkers such as Aristotle and Thales of Miletus[4]. It is no coincidence that all cultures have mythological beings who protect water and care for the seas and rivers. These include the well-known Poseidon and Neptune in Greek and Roman mythology, respectively, as well as other deities who protect this element, which is considered by all societies to be the source of life and creation.

Since ancient times, humans have sought to settle where they could access water for use and consumption. This is why we must look to the origins of different peoples around rivers, lakes and springs[5]. Water has always been and continues to be essential to human life, not only for consumption, but also

for the sustenance and preservation of other life systems. As a result of the human need for hydration, and in line with the evolution of societies, numerous objects have been created that not only contain and store water but also help to transport it to places where there are no nearby sources.

Although we will not conduct an exhaustive historical and artistic review of water-related manifestations since their inception — which would constitute another study — we will briefly discuss all objects related to water, some of which are referred to as "water tableware" — *la vajilla del agua*[6]— in certain texts.

This study will focus on the evolution and transformation of the botijo, examining it from the perspective of its production in relation to the needs of individuals within a specific social and geographical context. Viewed from this angle, we will seek to understand the reasons behind its shape, finishes, and constituent elements, revealing how design decisions in terms of shape and material are deeply influenced by the specific demands of each society. Rather than providing a historical chronology from the botijo's origin to the present day, our study will attempt to glimpse the dialectic between form and function.

That said, it is worth noting that the porous qualities of clay are the result of the surrounding reality of its inhabitants, who needed to make utensils and researched and explored the materials they found in their environment. They transformed and experimented with the characteristics of clay to make it a useful domestic material.

We will discuss how the botijo emerged in a context where hot climates favoured the development of an object that could keep water at an optimal temperature for consumption. This object was born out of the need for fresh water. Therefore, this study will not draw parallels with other containers that serve a similar function, such as metal canteens, which were protected by damp cloths or felt to cool the water[7]. Instead, we will briefly focus on ceramic drinking vessels designed for containing or transporting water.

Ceramic Utensils: "Water Tableware"

Ceramics, characterised by their inherent plasticity and the accessibility of their raw materials, have evolved substantially throughout history, as evidenced by the abundance of archaeological finds in various regions. The Neolithic period saw the widespread manufacture of fired clay containers, which were integrated into a new set of tools reflecting technological change and the development of new subsistence strategies closely linked to agricultural and gathering settlements[8]. Analysis of these artefacts reveals a progression in formal and functional complexity that is closely linked to the geographical context, practical needs and aesthetic expression of each period. The stylistic variations in surface decorations provide valuable insights into the cultural dynamics and aesthetic preferences of the societies that produced them.

Vases, pots and jars magnify the qualities of fired clay, which acquired red, white, ochre or black tones depending on the type of soil used[9]. In his

examination of ceramic vessels, Pleguezuelo[10] establishes a descriptive and analytical classification, identifying three main categories: *tinajas, cántaros, y búcaros*[11] o *alcarrazas* — jars, pitchers and vases or jugs—.

The *tinaja* (fig. 1), which originated in the Mediterranean, was a large container used for storing liquids such as water, oil and wine. Due to its size and weight, it was often anchored to the ground for ease of use. The difficulty of handling the *tinaja* led to the development of other ceramic objects, such as jugs, which were primarily used for transporting water from fountains, wells, and springs to the *tinaja*.

Fig. 1. J. Laurent & Cía. *Cart loaded with clay jars*. Murcia, ca. 1870-1871. Ruiz Vernacci Archive, IPCE, Ministry of Culture and Sport. ID code: VN-00353.

Búcaros, or *alcarrazas*, on the other hand, were smaller vessels used for drinking water at the table. They were mainly used for storing and cooling water. *Alcarrazas* were apparently turned so that they had very thin walls. In terms of colour, there were two main groups: reddish-coloured búcaros or *barros*[12], which were derived from the presence of iron oxides in the clay used to make them, and tallas or *alcarrazas*, which were characterised by their white colour and were associated with the use of clays rich in calcium carbonate. This chromatic differentiation reflects the geological origin of the raw materials used to make these pieces: ferruginous soils produce reddish ceramics, while limestone soils produce white ones.

These objects most likely originate from the roots of Mediterranean culture as a whole. In the case of the Iberian Peninsula in particular, they reached their zenith in Roman culture and, later, in the Hispano-Muslim and Mudejar traditions, which were its most direct heirs. Examples from medieval Egypt and North Africa provide clues as to how these customs and the vessels associated with them may have been transmitted.[13]

Jugs, amphorae and cups for serving or cooling water were also known as *búcaro,*[14] a term that was also used in some Andalusian provinces to refer to the botijo. Of the many drinking glasses, the one that most closely resembles the botijo is the rhyton,[15] a Greek glass dating back to the 3rd century BC. Although it resembled a horn in shape, there was a small hole at the narrow end through which water flowed when it was held close to the mouth.

Fig. 2. Gabriel Nicolás Vera. *Argarique jug from Beniaján*. Archaeological Museum of Murcia. © Wikimedia Commons, CC BY-SA 3.0.

Although no precise chronology has been established for the botijo's appearance, archaeological finds allow us to trace its functional origins back to ancient times. A unique piece preserved in the Archaeological Museum of Murcia is particularly notable in this regard: a small ceramic vessel (fig. 2), which was discovered approximately six decades ago in the Puntarrón Chico necropolis in Beniaján, Murcia, and which belongs to the Argaric culture.[16] Dating back more than 3,500 years, this piece has a cylindrical, flattened

shape with a single opening and a handle at the top, reminiscent of a canteen. While it differs in form from the contemporary botijo, it shares a fundamental purpose: to preserve and transport water under optimal conditions, particularly in hot climates.

The closed nature of the piece, the functional orientation of its elements, and the choice of reduction firing for the ceramic all point to a design adapted to very specific needs. This allows us to establish a connection between this ancestral piece and the solutions that would be adopted by the botijo centuries later. In short, this vessel is an early example of a design logic based on water management that would become common in many Mediterranean cultures.[17]

The Botijo and its Design Logic: Identity and Geography

According to the Royal Spanish Academy's current definition, the botijo is described as a "porous earthenware vessel used to cool water, with a bulbous body, a handle on top, a filling spout on one side and a drinking spout on the other."[18] Of the many existing descriptions, one of the most interesting and detailed is perhaps that provided by Daniel Schávelzon[19] in his study of imported European ceramics, due to its analytical approach and foreign perspective:

> They are a type of unglazed vessel, with a wide base, a sinusoidal globular body, and of various sizes, although they generally do not exceed 30 cm in height, perhaps because their weight would have made them difficult to handle [...].
> On the upper part, they have a handle or grip placed in the center; on one side, there is a small mouth for filling it, and on the other side a spout —with a clear sexual connotation due to its shape— from which to drink. The small size of the openings is due to the need to reduce the entry of oxygen and heat. Those three small appendages were made separately and were placed before firing; by the way, the great weight supported by the upper handle made it normally break [...][20]

Drawing on the Latin American perspective of the author, this examination provides an interesting and detailed description of the generic concept of the botijo, based on the study of objects that arrived in Buenos Aires and are now preserved as pieces of ethnographic and cultural interest. This examination is significant because it reveals how various factors influence the geographical production of botijos, enabling us to conclude that: "In Europe, they are and were characteristic of dry and hot lands, since unglazed pottery reduces the temperature of the liquids it contains."[21]

Although warm weather is a feature of almost the entire peninsula, the north of Spain has an oceanic climate. Frequent rainfall and constant humidity throughout the year determined the use and appearance of botijos. Unlike in the rest of the peninsula, which has a drier climate, botijos in these northern regions were not used to cool water; instead, they were used for

transporting and storing it. Mediterranean areas with low humidity and high temperatures generated the cooling of liquids that was so necessary in inland regions, a physical principle that has been studied for application in other environments and which we will explain later. It is therefore important to understand that, as with other social or cultural factors, the climate determined the material and formal characteristics of the botijos. As the author points out in this excerpt, "In contrast, in regions further north in Spain, botijos were glazed as they were only used to store water, not cool it."[22]

The botijo and the principle behind evaporative cooling

If we look at our archaeological heritage, we can see that all cultures have products designed for storing water. However, it is in Mediterranean culture that we find numerous artefacts designed to keep water at an optimal temperature for consumption (fig. 3). The botijo's appeal lies in its ability to cool water without the need for an external energy source, as the clay (a porous ceramic) exudes water through capillary action. This evaporation is fuelled by the thermal energy required by the water inside (latent heat of vaporisation), which cools the water, reducing its temperature by several degrees compared to the outside temperature.

The lowest temperature that water in a botijo can reach is limited by a property known as the wet bulb temperature. This value depends on factors such as air temperature, humidity, and atmospheric pressure. It represents the maximum extent to which water can be cooled by evaporation. However, it should be noted that the surrounding air, which is usually warmer, also heats the botijo's surface, meaning the water cools down but never below the equilibrium point between the environmental heat and the cooling effect of evaporation.[23]

Fig. 3. National Museum of Anthropology. *Nubian jug*. 1901-1964. CERES Online Collection. ID code: CE3849.

In 1995, Zubizarreta and Pinto developed a mathematical model based on experimental measurements, taking into account the time, mass and temperature of the water in the jug. This principle was studied in a controlled atmosphere, with hypotheses being established to quantify the rate of water evaporation and the temperature variables inside the container. This was the first time that the evaporation principle from a jug had been formulated using a mathematical equation. The results of the experiment underscored the ability of the jug to maintain the internal temperature of the water at 24 °C

— the initial parameter — when the simulated external temperature reached 39 °C, as if it were the normal temperature on a sunny day.[24]

The evaporation of water can be discussed using the principles of thermodynamics: heat is transferred by capillary action to the surface of the clay, which lowers the jug's internal temperature. This principle is more important than one might think, as the jug's shape, its two holes and the finish of the material all influence its proper functioning. The ceramic must be porous, so it must not be glazed or varnished, as this would prevent capillarity from working. "The fundamental quality of clay is its porosity, which is maintained in pottery by not glazing its walls. This gives the piece a special advantage in that it can keep liquid cool to a degree that a refrigerator can never achieve."[25]

Humans are fascinated by how the botijo works, and this has led numerous researchers to focus on this principle and export it to other systems. They have explored its application in architecture and food production,[26] as it is interesting to note that this apparently simple principle does not require an external energy source, making this system a model of energy sustainability.

> What a delight it is to quench one's thirst with a sip of fresh water on a hot summer day! You don't need ice cubes or a refrigerator for this: the traditional Spanish botijo is made of unglazed fired clay and can keep its contents at a temperature more than ten degrees below ambient. In fact, the physical principle behind its operation has inspired the development of a basic refrigerator in Africa consisting of two jars.[27]

Cartography of the Botijo

The botijo is that iconic symbol, that quintessentially Spanish object that fascinates both for its physical principle of temperature preservation and for the wide range of forms, capacities, colors, textures, and finishes it boasts. Every region of Spain has its own botijo, ranging from delicate enamels to robust pieces in shades of red, white or black, with some featuring austere designs and others with shapes that defy the imagination (fig. 4).

Few people know that we have three museums dedicated to the botijo scattered throughout Spain — in León, Barcelona and Alicante — which house significant historical collections. Perhaps the most comprehensive and representative of Spanish history is the museum in Toral de los Guzmanes (León[28]), which houses a rich collection displaying a wide range of shapes and materials, with examples from various origins and periods. This collection is considered the most specialised and complete in Spain, as it includes practical pieces as well as artistic elements and curiosities related to the botijo.

In Barcelona, we find the *Museo del Càntir* de Argentona,[29] a museum dedicated to pitchers and jugs. The museum documents the evolution of the *cántir*, or Valencian botijo, which is a type of ceramic container designed to

Fig. 4. Herrero Archive. *Botijos. Campo Real, Pottery Museum*. ICPE, Ministry of Culture and Sport. Herrero Archive. ID code: HER-21187.

hold liquids. Although the *cántir* is different in shape to the traditional botijo, it shares the same function. The collection brings together a variety of ceramic pieces related to the storage and use of water, including local examples as well as pieces from the Iberian Peninsula and beyond.

Finally, the Botijo Museum in Villena,[30] Alicante, has an extensive collection, mainly comprising examples from the 19th and 20th centuries, but focuses more on production in Alicante.

By consulting the collections of these three museums and the relevant bibliography,[31] it is possible to compile a comprehensive history of the botijo. This can be achieved by applying a taxonomy that identifies and organises the key aspects of its development, such as regions of production, formal variations, diversity of materials, and decorative richness. However, before undertaking this cataloguing task, it is important to note that the different texts and oral sources consulted describe similar pieces by different names. To organise this information clearly, we have attempted to identify a typology of botijos based on the most generic descriptions, which allows us to establish a model. However, we must be aware that in some regions, different terminology is used to that employed in this article. To represent all voices, we have supplemented the definitions with some of the terms commonly used in these regions.

Natacha Seseña catalogues water jugs based on their place names. Despite the simplicity of her graphic outline, she manages to capture the variety of water jugs that exist in "Castilla La Nueva,"[32] it does not explain the differences or relevance of each one in relation to similar ones from other

regions. Therefore, the jug referred to as Camporreal —in the province of Madrid— is defined as "having no distinctive characteristics worthy of mention."[33] Thus, we understand that this type of jug, to which she gives a specific name, can be classified within what we have described as *botijos comunes* —common jugs—. The same applies to the one known as *Cuerva*[34] —which mentions two models— describing it as a type of pottery that has evolved from its utilitarian origins into two ornamental models, one of which is ring-shaped, similar to what we include in our catalogue as ring-shaped or doughnut-shaped jugs— *botijos anulares o de rosco* —. In the region of Aragon, María Isabel Álvaro Zamora describes the *Rallo* as a "*rajo* or *botija de reja*: a typical Aragonese jug. Similar to a pitcher, with a slightly more stylised and smaller shape,"[35] which, by definition, we include in the common jug —*botijo común*— just like the models he tells us about: "A 'Levantine-style' water jug, characterised by a tall, round handle, with a spout and filling opening on the sides. They were manufactured in various sizes and shapes, including variants such as the 'Santander', the 'Catalan' and the 'Aro',"[36] which can still be found today in potters' catalogues for sale.

What we later describe as group water jugs — *botijos de grupo*—, associated with farm work, are called in Aragon " 'harvest jugs' such as the 'ginebro' or 'calabacica' from Fuentes del Ebro: with a narrow mouth that could be easily covered", or the " 'botejón' or 'botija pastora': narrow neck and mouth located on the side wall, which helped with direct pouring."[37]

Other models, such as those we classify as country jugs or canteens — *botijo de campo o cantimplora*—, mainly associated with agricultural activities, are identified in various ways, describing them as follows: "Montoro jug-canteen —*Botija cantimplora*— or 'flat jug' — botija-chata —from Fuentes: with tall handles, joined by string and straight sides. They were used as canteens and hung on donkeys or carts."[38]

In the region of Murcia, there is a similar model called *botijón* or "the worker's jug,"[39] which was:

> Rounded and pot-bellied, beige in colour, with a completely flat back. To prevent dirt from entering, a cork stopper was placed in the filling hole and a wooden stick in the spout, leaving it completely closed. A braided hemp cord runs from handle to handle. The flat side made it easy to transport, as it could be hung on carts or on the backs of workers.[40]

It is interesting to underscore some pieces that, although considered *common botijos* in their region, are quite peculiar within the national landscape. In Salvatierra, Extremadura, there is a type of water jug with a spout that is significantly longer than other models, which is why the local population calls it *espiche* —a name that refers to one of its parts—, making it easier for the user to drink water. It is so typical of its land that it receives different names depending on its various sizes and users; we thus find the "embeleco" (4 or 5 liters), the "chingue grande" (3 liters), the "chingue chico"

(1 or half a liter), "mico" (half a liter), "pistolo" (between half and a quarter of a liter), and the "colegial" (a quarter of a liter [41]).

Although we know that there are many more types and meanings of botijos, and that we could list the different names by geographical area, we will try to provide a general description that groups these types together, so that we can understand their characteristics, shapes and functions comprehensively.

The anatomy of the botijo: where form embraces function

To provide a morphological description of the botijo, we can say that it is a closed vessel used to transport water and drink from a stream. It has a globular body that acts as a reservoir, a top handle, a large neck or mouth for filling — *cuello* o *gollete*—, and another smaller one for drinking, known as a *pitorro*. The shapes, sizes, and other factors depend on characteristics such as the wide typological variety, which is related to specific uses according to their function and context.

Although each region has a distinctive name to identify botijos, we will try to create a generic classification based on their functions, capacity, finishes, and particular attributes, in order to create a taxonomy that allows us to identify each one of them.

Before we describe the names and characteristics of botijos, it is useful to note that there are three main groups: those categorised by their use, their shape, or their attributes or purposes.

The first group is organised by use and includes botijos for oil, storage botijos, common botijos, winter botijos, glass botijos, boat or fisherman botijos, field botijos, refrigerator botijos, watering can botijos, double spout botijos and trick botijos.

The second type is organised by shape: cylindrical, stoppered, ring-shaped, screw-top, trunk-shaped, anthropomorphic, and zoomorphic.
Thirdly, they are classified by their attributes or purposes: metal jugs, wooden jugs, jugs made of cork, decorative jugs, tower jugs, bell tower jugs, christening jugs, wedding jugs, children's jugs, canteen jugs and artistic jugs, including fantasy jugs, "modernist"[42] jugs and designer jugs.

We have decided against creating a catalog based on capacity, as we understand that this concept is directly related to the function for which they were designed.

Common botijos are found throughout the Iberian Peninsula. The most typical had dimensions of 30 to 40 centimeters in height and a capacity of 6 liters. Some had the upper part glazed and were used to transport water and drink in a stream. Similar to the common one, except that it was fully glazed, is the *winter botijo*, developed mainly in Catalonia. They were used primarily in cold places or during the winter season, with a decorative purpose.

The group jugs —*botijos "de grupo*"— had a capacity of 10 to 20 litres and were used mainly by reapers and charcoal burners for transporting and consuming water during collective work.

The straw jug —*botijo de pitillo*— was favoured by shepherds and farmers as it prevented their lips or beards from getting wet, as water only came out through a long, thin tube.

Reservoir jugs —*botijos depósito*— were used to transport water from springs or reservoirs to country houses, where they served the same purpose as pitchers in other regions. The largest of these were almost 50 centimetres high and had a capacity of 24 litres.

Different types emerged to meet the needs of the people, associated with specific activities. Boat jugs, also known as fisherman's jugs —*botijos de barca o de pescador*— were used on boats, particularly by fishermen on the Catalan and Valencian coasts and in the Balearic Islands. They are easily recognisable by their flat base, which stops them from tipping over when the boat moves.

Cylindrical or stopper jugs —*botijos cilíndricos o "de tapón"*— have a cylindrical belly or reservoir that is slightly narrower at the base and takes the shape of a cork stopper. They are widespread throughout the Iberian Peninsula, but those from Verdú, Piera, Tivenys, Ocaña, Jiménez de Jamuz, Guadix and Talavera de la Reina are particularly noteworthy.

Similarly, country jugs — *botijos de campo* —were used to transport water and wine while working in the fields, and they had protective spouts and necks. Some, known as *mamets* and *barrals*, had two handles so that a rope could be tied to them for carrying them while hanging. Similar to these were canteen-type jugs —*botijos tipo cantimplora*— with straight sides, which were designed for transporting water on excursions and trips and held less than three litres.

In a domestic context, although not for water, there was a botijo for oil —*botijo para el aceite*— that performed the same containment and pouring functions. They could be glazed, and came in sizes ranging from half a litre to 12 litres.

In the mid-20th century, small, very flat refrigerator jugs appeared —*botijos de nevera*—. These were used to cool water inside refrigerators.

In terms of their decorative and symbolic significance, ring-shaped or doughnut-shaped —*botijos anulares o de rosco*— jugs represented the solar circle and originated in the Mediterranean basin in ancient times.

Children's jugs —*botijos de niños*— were smaller in size, with a capacity of approximately one litre, and were used by young children to fetch water from fountains.

Some variants had highly specialised functions: double-spouted jugs —*botijos de doble gollete*—, for example, were used to cool the wooden wheels of carts and fill the machines used in the sulphurisation of vineyards.

On the other hand, standing jugs — *botijos de pie* — combined an ornamental function with the ability to drink from a spout. Trick jugs —*botijos de engaño*—, meanwhile, were made for decorative and recreational purposes and were used for practical jokes, as they had more than one spout and could only be drunk from one. Watering jugs —*botijos de regadera*— were

designed specifically for watering plants, with a nozzle "alcachofa" replacing the spout.[43]

In terms of their symbolic representation, anthropomorphic jugs —*botijos antropomorfos* — depicted human figures, while zoomorphic *botijos* (fig. 5) evoked the animal kingdom. Unusual variants include toy *botijos*, which were used to entertain children and gave rise to miniature botijos used for decorative purposes today. Other types include christening jugs —*botijos de bautizo*—, which were used in religious ceremonies; *botijos de alma*, which served an ornamental function and possibly had a spiritual meaning; and trunk, tower and bell tower jugs —*botijos de tronco,* or *botijos de torre* and *campanario*—.

Fig. 5. Otto Wunderlich. *Stall with ceramic jugs shaped like roosters. Barajas ceramics market, Madrid*, 1936. Wunderlich Archive, IPCE, Ministry of Culture and Sports. ID code: WUN-21142.

Glass jugs or *botijos de vidrio* became very popular in wealthy households during the 18th and 19th centuries. They were used for serving water and for embellishing the home. With the advent of Modern Movement, decorative and artistic *botijos* emerged that were designed purely for aesthetic purposes and produced mainly by contemporary designers and artists.

At the same time, new materials began to replace ceramics. While the botijo's distinctive structure remained unchanged, its thermodynamic capacity became less relevant. Metal botijos were introduced in work environments or where wear and tear was greater, as fired clay was too fragile

for these settings. Similarly, wooden and cork botijos were adopted in these spaces to minimise the risk of breakage posed by traditional ceramic models.

The botijo's evolution has been marked not only by changes in materials and uses, but also by efforts to preserve and disseminate its history. Thanks to the efforts of museums such as the *Museo del Càntir* in Argentona, it is now possible to view the catalogue of their exhibition, *Càntirs Valencians de Fantasia*[44] (Valencian Fantasy Water Jugs), which showcases water jugs made in the last decades of the 20th century. These jugs are known as "fantasy water jugs" —*botijos de fantasía*—. The collection illustrates the transformation that potters undertook in the Valencian context, moving away from traditional botijos and reflecting the values of local culture.

Over time, this ceramic object evolved, with its most common and functional forms developing a predominantly ornamental style. Decoration was the central feature of *Valencian fantasy cantirs or botiges*, a subcategory of figurative *cantirs* that maintained its own identity within the Valencian community throughout the 20th century. The formal richness of these pieces allows them to be grouped into several thematic sets: products from the Valencian countryside representing fruit and vegetables; human figures including infants and modernist women; everyday scenes; animals including ducks, roosters, swans, dogs, bulls, snails and fish; local architecture; everyday objects; the locomotive as a symbol of modernity; festivals, religion and popular traditions; music, games and spectacles such as bullfights; and even fictional characters such as Don Quixote and Minnie Mouse.

From a historical point of view, these objects provide relevant information on popular architecture, traditions, festivals, local products, and other aspects of Levantine culture. It is interesting to note that this exhibition was rejected by "experts," who deemed it "inappropriate for a collection of authentic folk art" and dismissed this new typology as mere *"souvenirs"* or kitsch pieces.[45]

The metamorphosis of the botijo, driven by social demand, is evident in these ornamental, largely non-functional pieces. They were inexpensive and were often purchased by the population as souvenirs and gifts to decorate their homes. Produced mainly in Manises and other ceramic centers in the Valencian region, it reached a high volume of production thanks to the use of molds, which reduced the overall costs of the process. This aspect, highlighted in the present study, allows us to discern one of the early driving forces behind the industrialisation[46] of artisanal processes.

This unique type of ceramic production began in the early 20th century. It coincided with the widespread use of white limestone paste, moulds and well-defined production techniques, as well as polychrome decoration. Fancy jugs were produced throughout the century until the 1980s, when demand declined and they disappeared completely. The most successful productions were probably those created between 1910 and 1930, both for the quality of the models and for the execution of the replicas, as well as the precision and refinement in the painting of the decorative motifs.[47]

The Evolution of Objects: From Tradition to Modernity

Since the Industrial Revolution (1760–1830) , "which marked the transition from artisanal to industrial production,"[48] national ceramics have ceased to fulfil a purely utilitarian function. This change has led to traditional objects gradually being replaced by ones that are better suited to the new urban context.

This marked the beginning of what Seseña calls the "pottery crisis,"[49] a period during which the craft tradition was overshadowed by industrial, intellectual and social transformations[50], including the disappearance of water pottery "alfarería del agua."[51] In rural areas, access to water was provided by wells or cisterns —*aljibes*—, while in cities similar systems coexisted with new forms of piped wáter (fig. 6), such as potable and non-potable sanitary water, as well as water distributed by water carriers and public fountains.[52]

Fig. 6. Juan Miguel Pando Barrero. *Water Wheel in operation with jugs and pitchers in the foreground, Murcia*, 1969. Pando Archive, IPCE, Ministry of Culture and Sport. ID code: PAN-BI-00850.

Fig. 7. Juan Miguel Pando Barrero. *Women filling jugs and pitchers at a fountain in Guadalajara*, 1963. Pando Archive, IPCE, Ministry of Culture and Sport. ID code: PAN-BI-00135.

These new infrastructures transformed domestic habits relating to water consumption (fig. 7) impacting everyday tools. The development of refrigeration systems and the popularisation of butane, which replaced pots with pressure cookers, as well as the emergence of materials such as plastic and *Duralex*, led to traditional crockery being abandoned.[53]

Thus, the use of the botijo evolved from necessity to tradition, becoming an increasingly rare cultural symbol.[54] Finding a market for ceramic objects when there are lighter, cheaper and more durable alternatives is becoming increasingly difficult.[55]

This phenomenon is not a whim, but rather the logical response of an evolving society. The technification of modern life encompasses technological,

behavioural and cultural changes. The botijo was a response to the specific need for drinking fresh water in dry climates, but it was gradually replaced by new systems. As Ricard points out, "sociological changes have always been the driving force behind the evolution of human tools. A change in lifestyle requires new tools that adapt to the demands of this change."[56]

Industrialisation had a widespread impact on all aspects of daily life, transforming domestic habits and reducing the practical use of traditional tools to nostalgia or symbolism. As Henares Díaz rightly points out, "in the past, hardly any kitchen utensils were made of materials other than pottery. Now, for instance, it is unusual for anyone to use a pottery colander."[57]
The use of new materials such as glass, metal and plastic made domestic tasks easier, particularly in cities where the fast pace of life demanded more functional utensils. Seseña also notes that the introduction of television to rural areas had a profound effect on systems of cultural transmission, promoting the standardisation of habits and values.[58]

The "pottery crisis"[59] thus meant not only the loss of a productive system, but also of a way of life. This transition can be seen in graphic records such as the image (fig. 08), which shows artisans in a ceramics market during the 1940s, visual testimony to a craft that was still active, although already immersed in processes of sociocultural transformation. However, from the 1960s onwards, the boom in tourism—especially international tourism—offered a new opportunity for artisans. Traditional pieces began to be valued as decorative objects, purchased by both tourists and national collectors: "Pots and jugs are bought more by the rich than by the poor."[60]

Fig. 8. Otto Wunderlich. *Two men selling botijos at the San Antonio festival, Madrid*. 1944. Wunderlich Archive, IPCE, Ministry of Culture and Sport. ID code: WUN-16978.

This reinvention of pottery materialised in the emergence of so-called "neo-artisans,"[61] who maintained traditional technical infrastructures but adapted their production to contemporary tastes. The focus was no longer on functionality, but on aesthetics, local identity, or nostalgia. The ceramic *souvenir*, "made of clay with all the iconography and paraphernalia of typical Spanish culture,"[62] symbolises this definitive transformation of the utilitarian object into a cultural ornament.

From craftsmanship to industrial design: a re-signification of the botijo

From the urgent need to conserve fresh water to the decline of its usefulness, we are astonished to witness the revival of an object that, a priori, makes no sense to revive, given that refrigerators and running water currently exist.

The botijo as a national symbol is evident in the eyes of industrial designers, because regardless of their experiences and nostalgia for the past, redesigning this object with not only its aesthetics in mind, but also the necessity of its process, is evident in the re-signification that some of the authors have made of the botijo.

From the pioneers of Spanish industrial design such as Miquel Milá and André Ricard, to Nani Marquina, Martín Ruiz de Azúa and even Javier Mariscal. This obsession with redesigning the botijo seems similar to what happens with the design of chairs and lighting, perhaps because it becomes a challenge for the designer to balance ergonomics, functionality and aesthetics in objects that are so present in the domestic environment,[63] perhaps in order to leave a mark on the legacy of tradition.

In this regard, Henares Díaz presents us with various perspectives on such an emblematic object and shares with us the reflections of numerous authors who have reinterpreted the concept of the botijo. In his examination, he delves into the symbolism of the spout, its playful form and its possible phallic connotations, underscoring how these elements have been revisited in design and popular culture:

> Perhaps, with the progressive decline of the botijo (there are now fridges and refrigerators everywhere, but it is nice to see how the tradition is being maintained), it has taken on a fun and very creative character, especially the botijos that imitate roosters and chickens. The results are surprising. And sometimes the fun is taken to obscene extremes (like dirty jokes about crotches and sexism). Here, the focus of the fun is always the spout, which in popular speech is already used in many metaphors involving laughter and coarse humour. These phallic references are, however, an exception, because what dominates the jug is its unique decoration, such as that of Salvatierra de los Barros (Extremadura), where the potter often uses a fine stone from the Guadiana river to embed a series of drawings of leaves or other

motifs; or those roosters (such as the one from Pururena) that attempt, in clay, to resemble plumage.[64]

But before our industrial designers and artisans subjected the botijo to this process of review and redesign, Pablo Picasso—our most international artist— acted as an ambassador for our culture by exporting our most patriotic icon: the botijo, with his *Pichet à glace* (1952[65]), a limited edition of fifty pieces, made in France, whose translation means "ice jug." The ceramic piece, made of white clay glazed with blue motifs and some shades of green or black, retains many of the formal characteristics of the traditional botijo. However, it introduces variations in the scale of the spout and the vocal in relation to the overall volume of the object. Pablo Picasso marks a paradigm shift by transferring a utilitarian and domestic object to the realm of art, thus transforming its meaning.

This process parallels the migration from the countryside to the city, which profoundly altered our relationship with objects and is part of a new cultural framework. In this context of transformation, the perception and use of certain traditional objects are also affected.

As Isabel Campi points out: "The value system of modernity does not pay attention to objects that are not useful, marginalising everything that is not 'classically modern'. Fashion and everything decorative, artisanal or ephemeral is omitted."[66] During the Modern period, the modern gaze consigned many objects rooted in popular tradition to oblivion. However, following the crisis of that paradigm, the contemporary gaze —as argued in this article— has recovered and redesigned them, reinterpreting these pieces through art and design and turning them into re-signified cultural symbols. Héctor Serrano, Alberto Martínez and Raky Martínez —while still students at the *Royal College of Art* in London— created the botijo *La siesta* (1999) (fig. 9). Due to their status as "exiles" in an Anglo-Saxon country, they decided to revisit the traditional Spanish system for conserving fresh water, hybridising the function of the botijo with the current ribbed injection-moulded plastic bottle.[67] The characteristic curves of the bottles—which are there to make them easier to use— improve their ergonomics by preventing them from slipping out of your hands when they are cold, straight out of the fridge. The jug is made of ceramic using traditional techniques such as turning, with very "Mediterranean" colour applications. This botijo evokes two periods: the pre-industrial era, with its artisanal and practical manufacturing, and the global era, as its formal aspects resemble a familiar one-litre water bottle. Its redesign adapts to today's lifestyle, reducing its weight and volume, making it easier to use and, in terms of sustainability, "helping to promote global environmental awareness and live in an environmentally friendly way."[68]

The visual interplay between form and function, tradition and innovation, is evident in its redesign, as are the concepts of reuse and sustainability. The result is a botijo (Spanish earthenware vessel) that evokes a contemporary design. The need to challenge the established and to recover things that have worked in the past are also present in this object.

Another design that unifies tradition and modernity is *Rebotijo* (1999) by Martín Ruiz de Azúa. [69] This piece engages in a dialogue with the typical beverage container for dairy products or juices from the Nordic multinational *Tetra Pak,* [70] but it's made from fired clay and with a casting mold. Its small size makes it a manageable product that's adaptable to the space of a refrigerator. Years later, Ruiz de Azúa created the *Neo-Rebotijo*, which is similar to the previous one with its characteristic cylindrical shape flattened at the top and lightly glazed. This version, however, was made entirely by hand in collaboration with the ceramist Marc Vidal, [71] and today it is part of the collection at the Design Museum of Barcelona (Museu del Disseny de Barcelona).

Fig. 9. Alberto Martínez, Raky Martínez & Héctor Serrano. *La Siesta. Contemporary design water jug*. Produced by Diabla (Gandía Blasco Group), 2020. Courtesy of Diabla. www.diablaoutdoor.com/productos/la-siesta/

The need to reinterpret the past and adapt it to contemporary life is a central theme in the work of the *Museu del Càntir de Argentona*, especially evident during the annual *Festa del Càntir* every August. Since 1951, as part of this festival, the museum has reproduced historical and traditional pieces of local pottery. In 2017, they added a new dimension to the event by inviting a designer or artist each year to create a signature botijo (earthenware vessel), produced in limited editions. These pieces, developed in collaboration with local potters, are often made from molds and are sold at the museum's store as well as in other spaces related to craftsmanship and design. [72] This re-signification of the botijo has been explored by several notable figures in design and architecture, including: Quim Larrea (2017); Joan Cruanyes y Carles Bassó (2018) with their *Càntirnplora* [73]; Miquel Milá [74] and André Ricard, [75] —both pioneers and prominent figures in industrial design—participated in 2019 and 2020, respectively, showcasing contemporary designs that depart from traditional forms. All of these designers proposed contemporary designs that moved away from the traditional forms of the botijo. The proposed *Elefas* (2021) by Oscar Tusquets [76] is shaped like a white-glazed elephant. Meanwhile, Carme

Pinós's[77] botijo (2022) eliminates the spout, leaving a single hole in the handle that serves both functions. For her piece, Nani Marquina (2023) offers a tribute to the artisan's work, making the mark of the hand that created it visible with a gray smudge on an unglazed botijo, which she defines as "the beauty of imperfection."[78] In contrast, Javier Mariscal (2024) created his version using molds and a more industrial approach.

In recent years, the redesign of the botijo has grown with very diverse contributions, ranging from artistic interventions where the botijo becomes the medium and symbol of a message —such as Carmen Osuna's *Un jardín en el desierto*[79]— to more visual proposals like the pictorial intervention by Cóco Dávez[80] on its Surface. Also noteworthy are pieces like the *elBotijo* from the Wow collective, represented by Mariana Lerma and Mónica Thurne;[81] the formal re-signification by Narcís Díez Belmonte;[82] and the *botijo*-inspired table project by Carlos Jiménez Design.[83] These examples show how the traditional form can be transformed into new functional or decorative pieces. Its physical properties, such as sweating and keeping water cool, have also been explored, leading artisans like Iván Figueroa of IVANROS to reinvent its original use. His proposals include a botijo ice bucket, designed to keep ice cubes cold.[84]

Product design students have also contributed fresh and innovative ideas. For instance, students from the ESADA (Andalusian School of Art and Design) worked for three months on redesigning the botijo. Notable projects include Juanra Sola's hollow botijo that cools the air, and Luca Corallo and Patrick Uribe's *Oasis* project, which turns it into a stylish humidifier.[85]

Currently, the main ceramic productions are concentrated in towns with a strong pottery tradition, such as Agost (Alicante), La Rambla (Córdoba), or Bailén (Jaén). Here, traditional craftsmanship coexists with fresh perspectives from the world of design.[86] This proximity to the production centers allows schools like ESADA to collaborate with local artisans on botijo redesign projects, fostering a direct connection between students, the region, and the craft. An example of this approach is seen in Ulises Moya's final degree project, *Mojado —Wet—*, which re-examines the botijo using traditional materials and manufacturing processes, exploring its re-signification from a contemporary perspective.[87]

In conclusión

The central focus of this analysis is the technical capacity of a simple object to keep water in optimal condition for a specific activity. The solution the botijo offers, based on a physical principle that is as elemental as it is effective, has become more complex over time due to social evolution and the increasingly automated and unthinking use of technology.

At its core, the botijo is a piece of fired clay with a handle and two holes at the top one for filling and one for pouring. Its function is intuitive, even for a child (fig. 10). Yet, the potters who sell them today say they must include instructions for use, as many users don't know how to use it correctly. This observation is telling it's not a technologically complex object like a mobile

phone, and yet, its use has become foreign to everyday experience. This reflection highlights a growing disconnection from objects made of simple materials. Do we not understand how it works because it lacks instructions, because we don't stop to observe it, or because we are unfamiliar with the properties of clay?

An object is easy to use when all of its elements are considered together and the function of each is understood. As Donald Norman states "good design requires attention, planning, thought,"[88] and the traditional botijo was designed with these principles in mind. It's no coincidence that numerous contemporary designers have approached it with the aim of reinterpreting its essence, transforming a disused object into a piece of contemporary design.

The true fascination lies in the technical capacity of such a simple object. This isn't just because of the apparent humbleness of its material, but also due to its basic, functional, and ancient design and manufacturing process. The constant re-examination of the botijo by contemporary designers highlights an ongoing interest in questioning its function, rethinking its form, and re-evaluating its history.

Fig. 10. Otto Wunderlich. *Boy with a water jug at a customs office, Madrid*. 1936. Wunderlich Archive, IPCE, Ministry of Culture and Sport. ID code: WUN-27520.

André Ricard's reflections on the work of the craftsman emphasize that each new version brings an improvement. As in any trade, practice leads to perfection over time. He states that "the evolution of things made by humans doesn't just depend on intentional changes born from reflection, but also on knowing how to retain those successful elements that came by chance."[89] As a result of observation or pure logic, errors were corrected, proportions were

adjusted, or unnecessary elements were eliminated with each batch. Innovation, though silent, was a natural part of the artisanal process.

This constant process of trial and error not only led to technical improvements; it also opened the door to a symbolic and aesthetic transformation. Artisans, through their daily practice, incorporated elements of folklore, tradition, and domestic life, giving their creations a deep cultural dimension. When reviewing pieces produced between the 19th and 20th centuries, this clear evolution is apparent: the botijo ceased to be merely a functional object and became a symbol filled with meaning.[90]

Today, the botijo transcends its status as a mere domestic utensil to become a symbolic object of Mediterranean cultural heritage. Beyond its potential ornamental value, it is part of the collective imagination, holding memories, rituals, and customs that speak to a specific way of inhabiting and interacting with the environment. Its presence in homes, exhibitions,[91] and contemporary designs places it at the intersection of tradition and modernity. The botijo, having become a "fetish object" synthesizes this transition, acting as a bridge between the past and the present.[92]

The revival of the botijo in contemporary design is no coincidence; it stems from an approach that values traditional craftsmanship, material sustainability, and the symbolic roots of everyday objects. As such, the botijo has become a prime example of how an ancient piece can be reinterpreted through the lenses of design, research, and art.

Ultimately, the botijo represents much more than a utilitarian object from the past. Studying it invites us to rethink the value of everyday things and rediscover the relevance of traditional solutions for contemporary challenges.

Its enduring presence in artisanal practice, its re-signification in current design, and its cultural symbolism make it a pedagogical and conceptual tool, capable of connecting disciplines, generations, and regions. In a time when sustainability, identity, and memory are central to design thinking, the botijo reappears as a model of conscious design, born from collective knowledge and material experimentation. Recovering, re-examining, and redesigning it is also an act of resistance against planned obsolescence and a way to champion the value of what is essential.

NOTES

[1] André Ricard, *La Aventura Creativa. Las raíces del diseño*. (Barcelona: Ariel, 2008). Among Ricard's literary output, this work stands out as an emblematic piece. In it, the designer presents an innovative vision, conceiving the design of objects as a natural evolution of these, establishing a parallel with the biological evolution of species.

[2] The term "metadesign" is not recognised by the Real Academia Española —Royal Spanish Academy— (RAE). In this article, we use it to refer to the discourse that accompanies the design process — a dialogue that connects the function of traditional and contemporary objects—. This dialogue is exemplified by revisiting the botijo (a traditional clay jug) through its material. The evolution from artisanal to industrial design is thus understood as the integration of contemporary societal parameters with traditional materials, creating a play on terms, forms, and matter. It is important to distinguish "metadesign" from "metalanguage" (a term recognised by the RAE), which is defined as the language used to talk about language.

[3] Ricard, *La aventura creativa*, 153. Original: "una nueva versión actualizada de la creatividad congénita que posee la especie humana para dotarse de los artificios materiales necesarios a su propia supervivencia."

[4] Ángel F. Dueñas, "Pequeña historia del agua y la sed: Apología del botijo", *Boletín de la Real Academia de Córdoba de Ciencias, Bellas Letras y Nobles Artes 62*, n.º 121 (1991): 252. https://dialnet.unirioja.es/servlet/articulo?codigo=6149854

[5] Ibid., 251.

[6] This concept is used because it encompasses the interest of our research—utensils related to water—where we seek to highlight the importance of the botijo based on its functionality. This term has been found in various studies, but we highlight this author's work as it is the title of her article. See: Juana María Gómez Egea, "La vajilla del agua," *Revista Murciana de Antropología* 15 (2008): 11–22. https://revistas.um.es/rmu/article/view/108191

[7] Daniel Schávelzon, "La innovación en la cerámica con la inmigración hacia 1900: el caso de los botijos y su función refrigerante," *Urbania. Revista latinoamericana de arqueología e historia de las ciudades* 10 (2021): 127. https://n2t.net/ark:/13683/pssU/2BW

[8] Josep M. Fullola Pericot, Jordi Nadal Lorenzo, y Joan Daura Luján, *Introducción a la Prehistoria*, 2ª ed. (Barcelona: Editorial UOC, 2020): 180, 182, 196.

[9] It is worth noting that the shades of ceramic objects, as explained in the study, were largely due to the physical characteristics of the materials found in each geographic location. Chromatic qualities were a direct result of the type of clay in each context, with reddish being the most common in Spanish territory. Everyday ceramics were not colored, since glazing required an additional firing, which increased the final cost of the product.

[10] Alfonso Pleguezuelo, "Cerámicas para agua en el barroco español: una primera aproximación desde la literatura y la pintura,"*Ars Longa. Cuadernos de Arte 9-10* (2000): 127. https://doi.org/10.7203/arslonga.9-10.11744

[11] According to the Royal Spanish Academy (RAE), the term *búcaro* refers to: "A reddish, clayey soil, originally brought from Portugal and used to make vessels that were valued for their characteristic aroma, especially as jugs for serving water."

[12] *Barro* is a concept similar to clay that is used for modeling

[13] Pleguezuelo, op. cit., 127.

[14] Dueñas, op.cit., 255.

[15] Ibid.

[16] The information about this ceramic vessel found in the necropolis of Puntarrón Chico (Beniaján, Murcia), currently preserved in the Archaeological Museum of Murcia, comes from the informative document *La cantimplora de la poción mágica argárica* (Museos Región de Murcia, n.d.), prepared from the studies of Enrique García Sandoval during the II Archaeological Excavation Campaign at the Argaric site of Puntarrón Chico. See: Enrique García Sandoval, "II Campaña de excavaciones arqueológicas en el yacimiento argárico de Puntarrón Chico, Beniaján (Murcia)," *Nahe* 6 (1964): 1–3. Document available at: https://www.museosregiondemurcia.es/documents/2624878/23942571/P025-.pdf

[17] Natacha Seseña, *La cerámica popular en Castilla la Nueva* (Madrid: Editora Nacional, 1975), 130.
[18] Real Academia Española, *Diccionario de la lengua española*, 23rd ed., online version, s.v. "botijo," accessed March 5, 2025, https://dle.rae.es/botijo
[19] Schávelzon, op.cit
[20] Ibid. 127. Original: "Son un tipo de recipiente sin vidriar, de base ancha, cuerpo globular sinusoidal y de diversos tamaños, aunque por lo general no rebasan los 30 cm de altura, tal vez porque su peso hubiera dificultado manipularlos […]En la parte superior tienen una manija o asa colocada al centro, a un lado hay una boca reducida para su llenado y del otro lado un pitorro –de clara connotación sexual por su forma-, desde el que se bebe. El pequeño tamaño de los orificios se debe a la necesidad de reducir el ingreso de oxígeno y calor. Esos tres pequeños apéndices eran hechos aparte y se los colocaba antes de la cocción; por cierto, el gran peso que soportaba la agarradera superior hacía que normalmente se rompiera[…]"
[21] Ibid.
[22] Ibid.
[23] Gabriel Pinto Cañón, Manuela Martín Sánchez y María Teresa Martín Sánchez, "Enfriamiento del agua en recipientes cerámicos porosos: Un recurso para la formación en competencias," *European Journal of Education* 46, n.º 3 (2017): 289-306. In this article, thermodynamics is explained pedagogically, and the study is also extended to other uses.
[24] J. Ignacio Zubizarreta and Gabriel Pinto, "An ancient method for cooling water explained by mass and heat transfer," *Chemical Engineering Education* 29, no. 2 (1995): 96-99.
[25] María Isabel Álvaro Zamora, "La cerámica en el ciclo humano: la amplia funcionalidad de la cerámica aragonesa," *Temas de antropología aragonesa* 1 (1983): 150.
[26] Pinto Cañón et al. op. cit. Drawing inspiration from the botijo's physical principle, products have been developed that use evaporative cooling. This technique is particularly valuable for preserving food in environments with limited access to energy.
[27] Jean-Michel Courty and Édouard Kierlik, "Curiosidades de la física. Física del botijo," *Investigación y ciencia* 478 (2016): 86–88. Original: "¡Qué delicia aplacar la sed con un trago de agua fresca en una calurosa jornada de verano! Para ello no hacen falta cubitos de hielo ni frigorífico, el tradicional botijo español, de barro cocido sin esmaltar, puede conservar su contenido a una temperatura inferior en más de diez grados a la ambiente. De hecho, el principio físico en el que se basa su funcionamiento ha llegado a inspirar en África la construcción de una nevera rudimentaria, consistente en una doble tinaja".
[28] Pedro Cembranos, interview by the author, Toral de los Guzmanes, June 20, 2025; "Museos," Ayuntamiento de Toral de los Guzmanes, accessed March 19, 2025, https://www.aytotoraldelosguzmanes.es/turismo-y-ocio/museos/.
[29] "Museu del Càntir," Museu del Càntir d'Argentona, accessed March 21, 2025, https://www.museucantir.org/
[30] "Museo del Botijo," Museo del Botijo, accessed April 22, 2025, https://museodelbotijo.com/
[31] The botijo typology has been compiled from various sources. The main texts are the works of Natacha Seseña, *La cerámica popular en Castilla la Nueva* (Madrid: Editora Nacional, 1975) y *Cacharrería popular. La alfarería de basto en España* (Madrid: Alianza Editorial, 1997), which provide an overview of ceramics in Spain's regions and serve as a reference catalogue for national production. Other sources include articles by Alfonso Pleguezuelo, "Cerámicas para agua en el barroco español: una primera aproximación desde la literatura y la pintura,"*Ars Longa. Cuadernos de Arte 9-10* (2000): https://doi.org/10.7203/arslonga.9-10.11744, which explores the use and representation of ceramics for water in the context of Spanish Baroque. The functionality of Aragonese ceramics in the human cycle analysed by María Isabel Álvaro Zamora, "La cerámica en el ciclo humano: la amplia funcionalidad de la cerámica aragonesa," *Temas de antropología aragonesa* 1 (1983). Another notable article is Daniel Schávelzon, "La innovación en la cerámica con la inmigración hacia 1900: el caso de los botijos y su función refrigerante," *Urbania. Revista latinoamericana de arqueología e historia de las ciudades* 10 (2021), which addresses the evolution of the botijo and its cooling function in the context of early twentieth-century immigration; and Oriol Calvo, *Guía del Museo del Cántir*. (Argentona: Museu del Càntir d'Argentona, 2007).

[32] This term is used instead of Castilla-La Mancha because it corresponds to the title of the author's book, which was published under that name at the time. See: Natacha Seseña, *La cerámica popular en Castilla la Nueva* (Madrid: Editora Nacional, 1975).
[33] Natacha Seseña, *La cerámica popular,* 72.
[34] Ibid., 32.
[35] María Isabel Álvaro Zamora, op. cit. 152. Original: "rajo o botija de reja: botijo típico aragonés. Semejante al cántaro, con forma algo más estilizada y pequeño".
[36] Ibid. Original: "Botijo de 'tipo levantino', caracterizado por un asa alta y redonda, con caño y boca de llenado en los laterales. Se fabricaban en diversos tamaños y perfiles, incluyendo variantes como el de 'Santander', el 'Catalán¡ y el de 'Aro'".
[37] Ibid. Original: "Botijo 'de siega' como el 'ginebro' o la 'calabacica' de Fuentes del Ebro: con boca estrecha que podía taparse fácilmente, o el de 'Botejón' o 'botija pastora': cuello y boca estrechos situados en su pared lateral lo que ayudaba al vertido directo".
[38] Ibid. Original*:* "'Botija cantimplora' de Montoro o 'botija-chata' de Fuentes: de asas altas, unidas por cordel y pared recta. Las usaban como cantimplora y se colgaban en el burro o carro"
[39] Juana María Gómez Egea, op. cit. 19.
[40] Ibid. Original: "redondeada y panzuda, de color beige, con la parte trasera totalmente plana. Para evitar la entrada de suciedad se colocaba un tapón de corcho en la boca de llenado y un palillo de madera en el pitón de salida, quedando totalmente cerrada. De asa a asa encontramos un cordel trenzado de cáñamo. La cara plana facilitaba su transporte, siendo colgado en los carros o a la espalda de los trabajadores".
[41] Carmen Padilla Montoya, "Los trabajadores del barro en Salvatierra," *Narria: Estudios de artes y costumbres populares* 25, no. 25 (1982): 29-32, https://dialnet.unirioja.es/servlet/articulo?codigo=254712
[42] Some authors have used the term *modernist* to describe figurative water jugs produced in Biar, in the Valencian Community. However, this designation is associated only with the period in which they were created, which coincided with the Modernist movement in Spain (known internationally as *Art Nouveau*). Although certain pieces reveal modernist influences, they do not, in fact, directly correspond to the aesthetics or themes of that movement
[43] While the use of this system in the production of earthenware botijos seems original, antecedents of clay jugs with a spigot for the water outlet can be seen in Figure 188. "Yellow lead-glazed watering can. Probably from the 15th century. (Hastings Museum)." Original: "Regadera vidriada al plomo amarillo. Probablemente del siglo XV". See Emmanuel Cooper, *Historia de la cerámica* (Barcelona: Ediciones Ceac, 1999), 123.
[44] Oriol Calvo Vergés, *Càntirs Valencians de Fantasia: el reflex d'una cultura mediterrània* (Argentona: Museu del Càntir d'Argentona, 2014), 38, https://www.aic-iac.org/wp-content/uploads/Catalago-CVF-Digital.pdf.
[45] Oriol Calvo Vergés, op. cit. 38.
[46] Bernhard E. Bürdek, *Diseño: Historia, teoría y práctica del diseño industrial.* (Barcelona: Gustavo Gili, 2002), 19. From the mid-19th century onwards, the division of labour meant that industrial design became a topic of discussion. Craftsmen ceased to be craftsmen when the design and execution of a product were carried out by different people and production work was divided into tasks. This meant that craftsmen were no longer responsible for controlling the entire production process.
[47] Oriol Calvo Vergés, op. cit. 41.
[48] Renato De Fusco, *Historia del diseño*. (Barcelona: Santa & Cole, 2005), 15. Original: "marca la gran línea divisoria entre producción artesanal e industrial".
[49] Natacha Seseña, *Cacharrería popular. La alfarería de basto en España.* (Madrid: Alianza Editorial, 1997), 31.
[50] De Fusco, op. cit. 43.
[51] Francisco Henares Díaz, "La alfarería del agua," *Revista Murciana de Antropología*, no. 15 (Decembre 2008): 23-32, https://revistas.um.es/rmu/article/view/108231

[52] Juana María Gómez Egea, op. cit., 12. Although the systems discussed in the text are cited as being r,epresentative of the entire population, the national context could be explored in greater depth, since the article only mentions those found in Cartagena and its surrounding area between the 19th century and the third quarter of the 20th century. They are presented as examples to illustrate the concept of the utilitarian disappearance of the botijo.
[53] Natacha Seseña, *Cacharrería popular,* 32-33.
[54] Schávelzon, op.cit.,132.
[55] Ibid., 127. The author analyses the use of the botijo despite the existence of systems for cooling, storing and transporting water. The connection he establishes with its use in Buenos Aires highlights its symbolic nature, given that it was not an object created in that territory but imported from Europe — specifically Spain. It should be noted that the study focuses on twentieth-century customs and that, as in Spain, the industrial revolution brought about identical consequences for other objects that fell into disuse.
[56] Ricard, op. cit., 30.
[57] Henares Díaz, op. cit., 27. Original: "antes casi no se tenían otros instrumentos en la cocina que no fueran de un alfar. Ahora, por ejemplo, será raro que alguien use una escurridera de alfarería".
[58] Natacha Seseña, *Cacharrería popular*, 31.
[59] Ibid.
[60] Natacha Seseña, *La cerámica popular*, 104.
[61] Ana María Fernández García, "La Fundación Generalísimo Franco o Fundación de Gremios. Mueble y artesanía en España (1941-1995)," *Res Mobilis*: *Revista internacional de investigación en mobiliario y objetos decorativos* 10, no. 13 (2021): 249, https://doi.org/10.17811/rm.10.13-3.2021.244-275.
[62] Natacha Seseña, *Cacharrería popular,* 32. Original: "hecho de barro con toda la iconografía y parafernalia de lo *typical Spanish*"
[63] Carlos Primo, "Las sillas extraterrestres que se producen en un pequeño taller de Sevilla," *El País*, January 25, 2024, https://elpais.com/icon-design/arte/2024-01-25/las-sillas-extraterrestres-que-se-producen-en-un-pequeno-taller-de-sevilla.html
[64]Henares Díaz, op. cit., 28. Original: "Quizás, con la progresiva desaparición del botijo (ya hay neveras y frigoríficos en todas partes, pero da gusto ver cómo se mantiene la tradición) ha ido tomando un talante divertido y muy creativo, en especial los botijos que imitan gallos y pollos. Las facturas conseguidas son sorprendentes. Y algunas veces llevando la diversión a extremos procaces (como los chistes orales de bragueta y machistas). Aquí el punto para la diversión siempre es el pitorro, que ya de por sí en el habla popular usa de muchas metáforas de carcajada y sal gorda. Esas salidas fálicas, de todos modos, son una excepción, porque lo que domina en el botijo es la decoración singular, como esa de Salvatierra de los Barros (Extremadura) en la que con una piedra fina del Guadiana va incrustando (la alfarera, con frecuencia) una serie de dibujos de hojas u otros motivos; o esos gallos (como el de Pururena) que intentan, en barro, parecer plumaje".
[65] Mabel Figueruelo, "El botijo, objeto de culto (y de deseo)". *El Economista*, July 17, 2021, https://www.eleconomista.es/evasion/noticias/11336815/07/21/El-botijo-objeto-de-culto-y-de-deseo.html
[66] Isabel Campi, *La idea y la materia: El diseño de producto en sus orígenes* (Barcelona: Editorial Gustavo Gili, 2007), 239. Original: "El sistema de valores de la modernidad no atiende a objetos que no sean útiles, marginando todo aquello que no sea "clásico moderno". Se omite la moda y todo lo decorativo, artesanal o efímero".
[67] Héctor Serrano says the origin of this design lies in a conversation about tradition and contemporaneity, revisiting an object from traditional Spanish culture by taking a distance from it. Original: "Cuenta Héctor Serrano que el origen de dicho diseño se halla en una conversación en torno a tradición y contemporaneidad, revisitando un objeto de la cultura tradicional española a partir del distanciamiento de la misma", en Sara Losada Rambla, "Botijo La Siesta. Raky Martínez, Alberto Martínez y Héctor Serrano. 2001", in *Estudios críticos sobre diseño valenciano*, ed. By Vicent Pla Vivas and coord. by Rafael Martínez-Martínez (Valencia: Universitat València, 2024), 88, https://doi.org/10.7203/PUV-OA-715-7.

[68] Rosalía Torrent et al., *El diseño industrial en España* (Madrid: Ediciones Cátedra, 2010), 423. Original: "ayuda, en términos de sostenibilidad, a fomentar una conciencia ecológica global y a vivir de un modo respetuoso con el entorno".
[69] "Rebotijo / Neorebotijo," Martín Azúa, accessed February 20, 2025, https://www.martinazua.com/es/portfolio/rebotijo-neorebotijo/.
[70] Rosalía Torrent et al., op. cit., 424.
[71] "Neo-Rebotijo. Martín Azúa," *Tectónica*, accessed February 20, 2025, https://tectonica.archi/articles/neo-rebotijo-martin-azua/
[72] You can consult the formal and physical characteristics of the models made at the *Festa del Càntir*, as they are sold in some spaces like this one: https://oniricat.cat/es/botijos
[73] "Cantirnplora," *Oniricat*, accessed April 1, 2025, https://oniricat.cat/es/botijos/cantirnplora.
[74] "Botijo Miguel Milà – Argentona 2019," *Museu del Càntir d'Argentona*, accessed April 1, 2025, https://museucantir.org/es/activitats/botijo-miguel-mil%C3%A0-argentona-2019.
[75] "Venta en el museo," *Museu del Càntir d'Argentona*, accessed April 1, 2025, https://museucantir.org/es/activitats/venta-en-el-museo
[76] "71 Festa del Càntir 2021," *Museu del Càntir d'Argentona*, accessed April 1, 2025, https://museucantir.org/es/activitats/71-festa-del-c%C3%A0ntir-2021
[77] "72 Festa del Càntir 2022," *Museu del Càntir d'Argentona*, accessed April 1, 2025, https://museucantir.org/es/activitats/72-festa-del-c%C3%A0ntir
[78] "73 Festa del Càntir 2023," *Museu del Càntir d'Argentona*, accessed April 1, 2025, https://museucantir.org/es/activitats/73-festa-del-c%C3%A0ntir
[79] Carmen Osuna, "Un jardín en el desierto," *Con barro: revista internacional de arte*, no. 5 (2002): 40, https://www.academia.edu/34915745/Un_jard%C3%ADn_en_el_desierto_pdf.
[80] Marta Sader, "La nueva colección de cerámica de Coco Dávez, el objeto de deseo más 'arty' de la temporada," *Architectural Digest España*, accessed May 27, 2023, https://www.revistaad.es/articulos/ceramica-botijos-coco-davez.
[81] Anatxu Zabalbeascoa, "Talento español: ¿exportación o autoproducción?," *Del tirador a la ciudad* (blog), *El País*, June 1, 2012, https://elpais.com/elpais/2012/06/01/del_tirador_a_la_ciudad/1338526860_133852.html
[82] Chema Aznar, "La Botija, la botella de agua ilustrada," *Experimenta*, May, 29, 2024, https://www.experimenta.es/noticias/industrial/la-botija-la-botella-de-agua-ilustrada/
[83] You can view the design of the jug on Simon Legald's website, where it was created during his internship at Normann Copenhagen: Carlos Jiménez Design, "Junto", *Carlos Jiménez Design*, 2017, https://www.carlosjimenezdesign.com/junto
[84] Jesús Prieto, "Ivanros, cerámica de diseño de La Rambla que no conoce límites," *ABC*, July 30, 2023, https://www.abc.es/espana/andalucia/cordoba/ivanros-ceramica-diseno-rambla-conoce-limites-20230730090704-nts.html
[85] ESADA, "Diseño de producto, artesanía y la evolución del botijo," *ESADA Actualidad*, March 17, 2025, https://www.esada.es/actualidad/570-diseno-de-producto-artesania-y-la-evolucion-del-botijo
[86] Nacho Sánchez, "Botijo: de icono artesano en el mundo rural a pieza de arte", *El País*, August 13, 2022, https://elpais.com/estilo-de-vida/2022-08-13/botijo-de-icono-artesano-en-el-mundo-rural-a-pieza-de-arte.html
[87] Ulises Moya, "Mojado. Una revisión del Botijo a través de Material y el proceso de fabricación", *UMÁTICA. Revista sobre Creación y Análisis de la Imagen* 3, no. 4 (2021), https://doi.org/10.24310/Umatica.2021.v3i4.13132.
[88] Donald A. Norman, *La psicología de los objetos cotidianos* (Barcelona: Paidós, 1990,) 11.
[89] Ricard, op. cit., 19. Original: "la evolución de las cosas de factura humana no depende sólo de los cambios intencionados fruto de la reflexión, sino también de haber sabido retener aquellos aciertos fruto del azar"
[90] Bernhard E. Bürdek, op. cit., 231. Umberto Eco uses the terms "primary function" and "secondary function" to refer to the basic and symbolic uses of objects. Friedrich W. Heubach speaks of the "double objectivity of things". Together with other authors, he analyses the denotative and connotative values of designed products, as everyday objects acquire a symbolic quality that transcends their functional origins.

[91] The exhibition *Inspired in Barcelona: Terra Rossa* was recently held at the Museu del Disseny de Barcelona (October 16, 2024 – January 12, 2025), a project that takes the botijo as its central theme to explore its symbolic and creative potential. Curated by Júlia Esqué and conceived by Apartamento Studios, the exhibition brought together 80 botijo*s* reinterpreted by 16 contemporary artists and designers in collaboration with the ceramist Eloi Bonadona. The central installation, a monumental pyramid of botijo*s*, champions clay as a universal material in Mediterranean design. See "Inspired in Barcelona: Terra Rossa," Museu del Disseny de Barcelona, last modified 2024, accessed April 22, 2025, https://www.dissenyhub.barcelona/es/exposicion/inspired-barcelona-terra-rossa.
[92] Isabel Campi, op. cit., 227.

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